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Research Article

SCOPUS DATABASE AS A TOOL TO EVALUATE THE IMPORTANCE OF A SCIENTIFIC CONFERENCE-CASE OF CONFERENCES OF THE "INSTITUTE ALB-SHKENCA"



Social Science

Keywords: Evaluation, Scientists, Conference, Alb-Shkenca, Scopus database.

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Abstract

Performance evaluation of the scientific achievements of researchers within a scientific field, or comparing different scientific areas, continues to be a particular challenge for the scientific community. The scientific original publication essentially remains the main product based on which the quality of a scientific activity of a researcher is evaluated, while the journal where the scientific paper was published and the number of citations reflects the scientific "level" of an author. The rapid development of information technology and the vast spreading of the internet in the last few decades have enabled rapid growth of the universal knowledge. From dozens of electronic systems that deal with, the gathering, systematization and management of the scientific documentation, we can mention here the bibliographic database, such as "Scopus" (http://www.scopus.com). This bibliographic database is prepaid and provides the identification number (ID) and the personal profile for each author, with the following information: the address of the author, number of publications, bibliographic data, references and details about the number of citations for each publication, allowing users to record and calculate the Hirsch index (hindex) of the author. The large and rapid increase of scientific information in the second half of the last century has imposed development of the bibliometry, a scientific discipline that deals with mathematical and statistical analysis of scientific documentation gathered in journals and other scientific publications. The main indicators, on which the evaluation of the scientific achievements of researchers is based, have been various, from traditional indicators, such as number of scientific publications, the level of scientific journals, "Impact Factor" (IF) of the journals, the number of citations publications, to the contemporary bibliometric indicators, such as the Hirsch index (h-index), etc. The purpose of this overview paper is to estimate the impact or "weight" of a scientific conference, or a scientific meeting, respectively the 10th Annual International scientific meeting of the Institute Alb-Shkenca, organized in Shkup, in 2015 - by using smart tools for tracking, analyzing and visualizing research of Scopus, the largest bibliographic database. The analysis shows that out of 399 authors in this scientific meeting, 126 have an ID in Scopus, which means that each of them has at least one publication in the journals of Scopus database. Twenty-fifth (25) authors have documented an h-index greater than 5 (h > 5): 10 most successful authors of this scientific meeting have h-index greater than 10 (h > 10), while the most successful participant in this meeting had the Hirsch index h = 46. All participants of the conferences together had over 1200 publications listed in Scopus database, which have been cited 47,000 times in Scopus. Based on the analysis of Scopus database, we can ascertain a satisfactory level of scientific quality of the participants of this scientific meeting. Expecting, that the quality of participants will increase in continuity, we conclude that the annual international scientific meetings of the Institute Alb-Shkenca are making a substantial contribution to enhancing the universal knowledge. In addition, scientific results of these annual scientific meetings of the Institute Alb-Shkenca continue to make a significant contribution, particularly in economic and social development of the Albanian-speaking countries.

Introduction

A scientific conference or symposium is a meeting of researchers to present and discuss their research activities. Research conferences, together with the scientific journals, provide an important channel for promotion and exchange of information and scientific results between researchers. Nowadays, there are different types and categories of conferences, such as: national or international, scientific or professional, medium or large conferences that are not limited to only academic issues, and conferences held on annual or other periodic basis. Of course the quality of conferences and their participants is very different depending on various factors. Electronic databases such as "Scopus" [1] can be used as a tool to evaluate scientists (researchers) according to their modern bibliometric indicators [2-7], but also to evaluate the importance-impact ofscientific conferences. The aim of this overview paper was to evaluate the importance of a

scientific conference and its participants (researchers) by using the Scopus database. As a case study, we evaluate in this review the impact of the 10th annual meeting or multi-conferences (2015) of the "Institute Alb-Shkenca" [9], based on the scientific impact of the participants of these conferences.

The "Scopus" Database as a Source to Evaluate the Importance of Scientific Conferences

"Scopus" is the world's largest abstract and citation database of peer-reviewed research literature. With over 20,500 titles from more than 5,000 international publishers, Scopus offers researchers an accurate, easy and comprehensive tool to support their research needs in the scientific, technical, medical, social sciences, and arts and humanities fields [1].

The Institute "Alb-shkenca" and its Activities

The Institute Alb-Shkenca is a nonprofit scientific organization created from the internet forum Alb-Shkenca, started in October 2002 by Dr. Nikolla P. Qafoku, the first Director of the Institute, and a group of other colleagues living abroad.

The Institute is a private initiative of scientists and scholars from the Albanian Scientific Diaspora all over the world and from fellow countrymen scientists and scholars working and living in Albania, Kosova, Macedonia, that contribute on a totally voluntary basis. Voluntary contribution and the use of the modern information technology have been of primary importance for its development in the past years [8]. Actually there are three geographical branches: in Albania, Kosova and Macedonia.

The Institute has currently nine scientific sections:

- 1. Philological Sciences, Historyand Culture
- 2. Legal Sciences
- 3. Agriculture Sciences
- 4. Environmental Sciences
- 5. Economic Sciences
- 6. Natural Sciences
- 7. Medical Sciences
- 8. Engineering Sciences and Information Technology
- 9. Social and Political Sciences

Publications of Institute "Alb-Shkenca"

Institute Alb-Shkenca continually publish two different publications:

- "ANASH Approaching Science" An informative scientific magazine that is being published every six months since June 2006.
- "Aktet Proceedings of the International Annual Meeting of Institute Alb-Shkenca"
 A Journal promoting scientific achievements presented during the Annual Meetings of the Institute. Volume 1 was published on October 2008.

The publication of the Institute Alb-Shkenca are also indexed in Google Scholar and accessible over the Internet by the ALPA (Albanian Papers) System.

The Institute "Alb-shkenca" and its annual scientific conferences

Institute Alb-Shkenca is since 2006 continually organizing annual international meetings - conferences as follow:

- 1st Annual International Meeting, August 18, 2006, Tirana, Albania
- 2nd Annual International Meeting, August 15-16, 2007, Prishtina, Kosova;
- 3rd Annual International Meeting, September 01-03, 2008, Tirana, Albania;
- 4th Annual International Meeting, Aug 30 Sept 02, 2009, Tetovo, Macedonia;
- 5th Annual International Meeting, September 02-05, 2010, Tirana, Albania;
- 6th Annual International Meeting, September 01-04, 2011, Prishtina, Kosova;
- 7th Annual International Meeting, August 29-31, 2012, Shkup (Skopje), Macedonia;
- 8th Annual International Meeting, August 29-31, 2013, Tirana, Albania;
- 9th Annual International Meeting, August 29-31, 2014, Prishtina, Kosova;
- 10th Annual International Meeting, August 28-30, 2015, Shkup (Skopje), Macedonia;
- 11th Annual International Meeting will be held from September 01-04, 2016, Tirana, Albania [10].

Case study: The 10thAnnual International Meeting of Alb-Shkenca

The 10th Annual Meeting was organized on August 28-30, 2015 in Shkup (Skopje) (FYR of Macedonia). 399 authors (researcher) from different fields of science participated to the10th Annual Meeting, which was organized in a plenary session, 10 different conferences and 1 symposium:

- I. Plenary Session
- II. Conference of the Philological Sciences, Historyand Culture section
- III. Conference of the Legal Sciences section
- IV. Conference of the Agriculture Sciences section
- V. Conference of the Environmental Sciences section
- VI. Conference of the Economic Sciences section
- VII. Conference of the Natural Sciences section
- VIII. Conference of the Medical Sciences section
 - IX. Conference of the Engineering SciencesandInformation Technology section
 - X. Conference of the Social and Political Sciences section
 - XI. Conference "Terminology as an interdisciplinaryactivity"
- XII. Symposium: "Applying Computer Science in other sciences"

From 399 authors, that participated in the 10th Annual International Scientific meeting of "Institute Alb-Shkenca", 126 of them, or 32%, i.e. almost every third, are included in Scopus database. That means, that all of the 126 conference authors that attended to the conferences have published at least one publication in journals of Scopus database. The authors were from Albanian speaking counties (Albania, Kosova and Macedonia), Asia, EU and USA. In Table 1 are included the countries of origin of all 399 authors of the 10th Annual International Scientific meeting of "Institute Alb-Shkenca".

Table 1: Authors participated in the 10th Annual International Scientific meeting of "Institute Alb-Shkenca" and are included in Scopus database

Nr.	Country	Number of					
		authors					
1.	Albania	43					
2.	Austria	1					
3.	Croatia	1					
4.	Czech Republic 1						
5.	France	2					
6.	Germany	5					
7.	Italy	5					
8.	Kosovo	49					
9.	Kuwait	1					
10.	Macedonia 13						
11.	Norway	1					
12.	Switzerland						
13.	Turkey	1					
14.	USA	2					
	Total:	126					

From 126 participants included in Scopus database (Table 1), 105 participants (83%) were from Albanian speaking countries (Kosova 49, Albania 43 and Macedonia 13). Table 2 presents the main scientific fields and Subject areas of participants of the 10th conference of Alb-Shkenca included in Scopus database.

Table 2: Main Scientific fields and Subject areas of participants included in Scopus database.

Life Sciences – covers Source Titles in:		
 Agricultural and Biological Sciences 		33
 Biochemistry, Genetics and Molecular Biology 		21
 Immunology and Microbiology 		11
 Neuroscience 		2
 Pharmacology, Toxicology and Pharmaceutics 		16
	Sub-total:	83
Health Sciences – covers Source Titles in:		
– Medicine		32
Nursing		1
Veterinary		3
Dentistry		0
Health Professions		3
Includes 100% Medline coverage		
	Sub-total:	39
Physical Sciences – covers Source Titles in:		
 Chemical Engineering 		7
- Chemistry		42
 Computer Science 		9
 Earth and Planetary Sciences 		16
– Energy		2
Engineering (Covers COMPENDEX)		26
 Environmental Science 		35
 Materials Science 		9
- Mathematics		6
 Physics and Astronomy 		16
	Sub-total:	168
Social Sciences – coversSource Titles in:		
 Arts and Humanities 		6
 Business, Management and Accounting 		5
 Decision Sciences 		0
 Economics, Econometrics and Finance 		8
- Psychology		1
- Social Sciences		13
	Sub-total:	33
Multidisciplinary Sub-total:		
All Sciences Total:		330

As can be seen in Table 2, the field of Physical Sciences leads by the number of authors included in Scopus database (168), followed by Life Sciences (83), then by Health Sciences (39) and the field of Social Sciences (33).

Table 3 presents the subject areas ranked by the number of authors of the 10th conference of Alb-Shkenca included in Scopus database, divided into research fields. As we can see from the Table 3, there are authors from 24 subject fields.

Table 3: Subject areas ranked by the number of authors contained in Scopus.

		Number of authors			
1.	Chemistry	42			
2.	Environmental Science	35			
3.	Agricultural and Biological Sciences	33			
4.	Medicine	32			
5.	Engineering (Covers COMPENDEX)	26			
6.	Biochemistry, Genetics and Molecular Biology	21			
7.	Earth and Planetary Sciences	16			
8.	Pharmacology, Toxicology and Pharmaceutics	16			
9.	Physics and Astronomy	16			
10.	Social Sciences	13			
11.	Immunology and Microbiology	11			
12.	Computer Science	9			
13.	Materials Science	9			
14.	Economics, Econometrics and Finance	8			
15.	Chemical Engineering	7			
16.	Arts and Humanities	6			
17.	Mathematics	6			
18.	Business, Management and Accounting	5			
19.	Health Professions	3			
20.	Veterinary	3			
21.	Energy	2			
22.	Neuroscience	2			
23.	Nursing	1			
24.	Psychology	1			
25.	Decision Sciences	0			
26.	Dentistry	0			

The h-index (Hirsch index) [4] of 126 authors of the 10th conference of Alb-Shkenca included in Scopus database (by 06.03.2016) is presented in Table 4.

Table 4: h-index of 126 authors included in Scopus (by 06.03.2016)

Nr	h-index	Number of authors
1.	46	1
	33	2
2. 3.	27	1
4.	21	1
5.	20	1
6.	17	1
7.	16	1
8.	13	1
9.	11	1
10.	10	1
11.	9	2
12.	8	1
13.	7	2
14.	6	4
15.	5	3
16.	4 3 2 1	4
17.	3	9
18.	2	19
19.		38
20.	0	33
Total:		126

From 126 participant with an ID in Scopus, 93 had an h-index higher than 1 (h > 1), 20 had an h-index higher than 5 (h > 5). The TOP 10 of the authors that attended this scientific meeting had an h-index greater than 10 (h > 10), while the most successful participant in this meeting had the Hirsch index h = 46.

In Table 5 we presented the best 10 participants of the 10th Alb-Shkenca meeting that have h-index higher than 10, according to Scopus database (by 06.03.2016). Four of the ten best participants are coming from Albanian speaking countries.

Table 5: The authors that participated to the 10th Alb-Shkenca meeting and have h-index greater than 10 in Scopus (by 06.03.2016)

Nr	First name	Last name	Affilation	City	Country	Doc	Citat.	h	Subject areas
1	Mehmet A.	Oturan	Universite Paris-Est	Marne- la-Vallee	France	142	6119		Environm. Science;
2	Michael W.	Pfaffl	Technische Universitat Munchen	Munich	Germany	151	25054	33	and Biological Sciences;
3	Nihal	Oturan	Universite Paris-Est	Marne- la-Vallee	France	94	3381	33	Environm. Science, Chemistry; chemical Engineering
4	Bajram	Berisha	University of Prishtina	Prishtina	Kosova	63	2034	27	Biochemistry, Genetics and Molecular Biology; Medicine; Agricultural and Biological Sciences
5	Gastone	Castellani	Alma Mater Studiorum Universita di Bologna	Bologna	Italy	101	2133	21	Biochemistry, Genetics and Molecular Biology; Medicine; Physics and Astronomy
6	Nikolla P.	Qafoku	Pacific Northwest National Laboratory	Richland	USA	60	942	20	Environm. science, Agricultural and Biological Sciences; Earth Sciences
7	Bashkim	Ziberi	Institut fur Oberflachenmodifizierung	Leipzig	Germany	31	915	17	Physics and Astronomy, Materials Science; Engineering
8	Fetah	Podvorica	University of Prishtina	Prishtina	Kosova	29	2013	16	Chemistry, Materials Science; Chemical Engineering
9	Marina	Stefov	SS Cyril and Methodius University	Skopje	Macedonia	55	561	13	Agricultural and Biological Sciences; Chemistry; Pharmacology and Pharmaceutics
10	Hans- Peter	Kaul	Universitat fur Bodenkultur Wien	Vienna	Austria	64	487	11	Agricultural and Biological Sciences, Energy; Earth and Planetary Sciences

The 10 best authors are ranked (sorted) by 'h-index', then by "number of citations" and by "number of documents". From all participants of the 10^{th} scientific meeting of Institute Alb-Shkenca, the total number of publication in Scopus was 1,257 and the total number of citation in Scopus 46,894 (by 06.03.2016).

Conclusions

Based on the analyses of participants of the 10^{th} annual international scientific meeting of Institute Alb-Shkenca we can conclude as follow:

Out of 399 authors of the 10th Annual International scientific meeting of the Institute Alb-Shkenca, 126 had an ID in Scopus. That means, that each of them has at least one publication in the journals of Scopus database; 20 participants have documented an h-index greater than $5 \, (h > 5)$ and the 10 most successful authors of this scientific meeting had h-index greater than $10 \, (h > 10)$. All participants of the conferences together had over 1,250 publications in Scopus, which have been cited 47,000 times. Based on the analysis of Scopus database we can ascertain a satisfactory level of scientific quality of the participants of this scientific meeting. Expecting that the quality of participants will increase in continuity, we conclude that the annual international scientific meetings of the Institute Alb-Shkenca are making a substantial contribution to enhancing the universal knowledge. In addition, scientific results of these annual scientific meetings continue to make a significant contribution, particularly in economic and social development of the Albanian-speaking countries.

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